

U.S. Patent Application Serial No. 10/790,769
Response to Office Action dated February 9, 2007

REMARKS

Claims 2-13 are pending in this application, of which claim 10 has been amended. No new claims have been added.

Claims 2-13 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Applicants' Admitted Prior Art (hereafter, "APA") in view of Tsai et al. (previously applied) and further in view of U.S. Patent 4,985,400 to Choudhury (hereafter, "Choudhury").

Applicants respectfully traverse this rejection.

As noted in Applicants' response of August 24, 2006, Tsai et al. discloses a built-in mobile phone antenna assembly including a patch antenna, a loop antenna disposed adjacent to the patch antenna, and a parasitic element disposed adjacent to both the patch antenna and the loop antenna and coupled parasitically to the patch antenna.

The Examiner still maintains that claim 3 of Tsai et al. teaches electromagnetic coupling via a space is well-known in the art.

Applicants respectfully disagree. Claim 3 of Tsai et al. states:

The built-in multi-band mobile phone antenna assembly as claimed in claim 1, wherein said patch antenna is provided with a signal feeding point thereon, which is adapted to be coupled electrically to the circuit board.

This passage discloses that the patch antenna is electrically coupled to a circuit board, but it does not suggest electromagnetic coupling via a space.

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Furthermore, paragraph [0015] discloses that patch antenna 32 "has a signal feeding point 321 that is in electrical connection with the circuit board 4 in the mobile phone." This passage suggests a wired, direct connection, and not an electromagnetic coupling via a space, as in the present invention.

The antennas disclosed in Tsai et al., namely, planar loop antenna 31 and patch antenna 32, handle different frequency ranges, and the fact that the separate antennas are separated by a space does not teach that a planar antenna and a superconductive high frequency circuit are electromagnetically coupled via a space, as in the present invention.

The Examiner has cited Choudhury for teaching Y_1 , Ba_2 , $Cu_3O_{6.7}$ as the oxide high-temperature semiconductor, which is one of the alternatives recited in claim 10. However, Choudhury, like APA and Tsai et al. discussed above, fails to teach, mention or suggest electromagnetic coupling between the planar antenna and the superconductive high frequency circuit.

Accordingly, claim 10 has been amended to clarify that the electromagnetic coupling is via a space, and not a direct connection, and the 35 U.S.C. § 103(a) rejection should be withdrawn.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as unpatentable over APA in view of Tsai et al. and Choudhury and further in view of Shen (High Temperature Superconductivity Microwave Circuits).

Applicants respectfully traverse this rejection.

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Shen has been cited for teaching the superconductive high frequency circuit or the planar antenna is cooled to not more than 100K is well known in the art (Shen, pgs. 104-105), but, like the other cited references, fails to teach, mention or suggest the electromagnetic coupling via a space, as recited in claim 10, as amended, from which claim 12 depends.

Thus, the 35 U.S.C. § 103(a) rejection should be withdrawn.

Conclusion

In view of the aforementioned amendments and accompanying remarks, claims 2-13, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Applicants hereby request a two-month extension of time in which to file this response. The Commissioner is hereby authorized to charge the \$450 two-month extension fee to Deposit Account 01-2340 and is further authorized to credit any overpayment or charge any additional required fee not otherwise provided for, including application processing, extension, and extra claims fees, to said Deposit Account.

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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